

Value of Construction Put in Place

August
2001

Issued October 2001

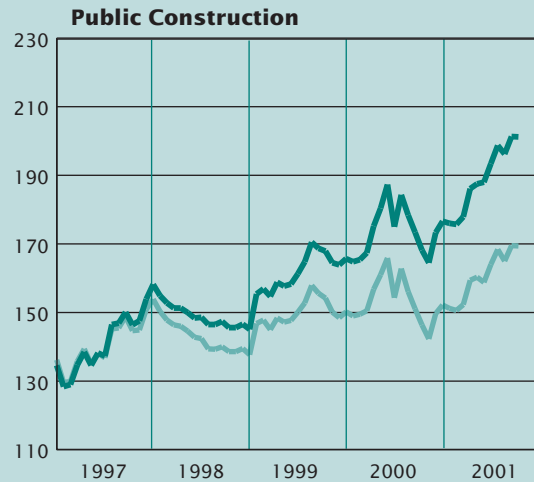
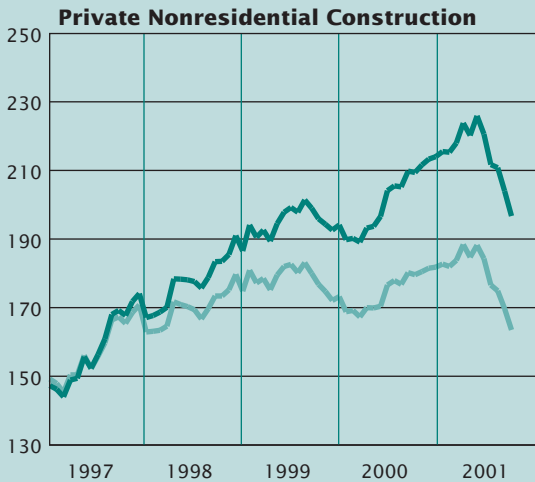
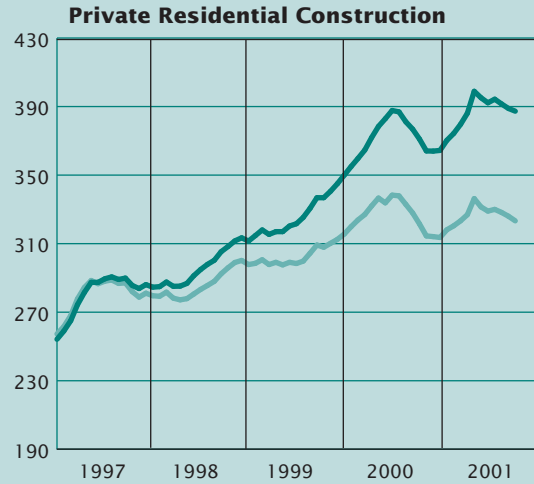
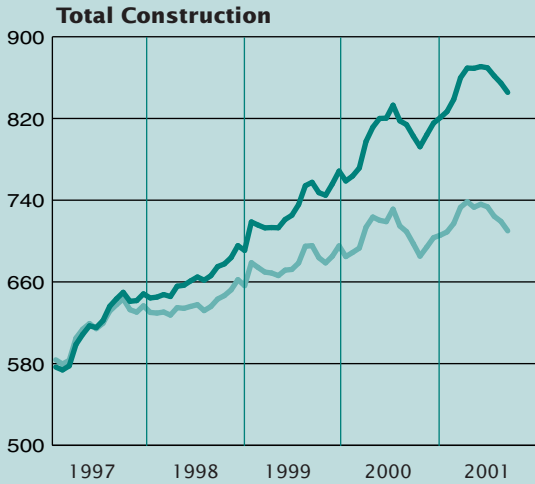
C30/01-8

**Current
Construction
Reports**

Monthly Value of Construction Put in Place

Seasonally adjusted annual rate in billions of dollars

— Current dollars
— 1996 dollars



Source: U.S. Census Bureau, Value of Construction Put in Place.

Questions regarding these data may be directed to **Michael Davis**, Construction Expenditures Branch, Manufacturing and Construction Division, telephone: 301-457-1605.

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VALUE OF CONSTRUCTION PUT IN PLACE

Construction put in place during August 2001 was estimated at a seasonally adjusted annual rate of \$845.5 billion, 1 (\pm 5) percent below the revised July estimate of \$854.6 billion. The August figure represents a 5 (\pm 5) percent increase over August 2000.

During the first 8 months of this year, \$563.1 billion of construction was put in place, 6 percent above the \$529.5 billion for the same period in 2000.

In constant (1996) dollars, the August annual rate was \$710.0 billion, 1 (\pm 5) percent below the revised estimate of \$719.2 billion for July.

Spending on new residential housing units was at a seasonally adjusted annual rate of \$278.6 billion in August, nearly the same (\pm 2 percent) as the revised July estimate of \$279.3 billion. Nonresidential building construction was at a rate of \$196.7 billion, 4 percent below the revised July estimate of \$204.0 billion.

In August, the estimated seasonally adjusted annual rate of public construction put in place was \$201.2 billion, nearly the same (\pm 5 percent) as the revised July estimate of \$201.3 billion.

The "value of construction put in place" is a measure of the value of construction installed or erected at the site during a given period. For an individual project, this includes—

1. Cost of materials installed or erected.
2. Cost of labor (both by contractors and force account) and a proportionate share of the cost of construction equipment rental.
3. Contractor's profit.
4. Project owner's overhead and office costs.
5. Cost of architectural and engineering work.
6. Miscellaneous costs chargeable to the project on the owner's books.
7. Interest and taxes paid during construction.

The total value-in-place for a given period is the sum of the value of work done on all projects underway during this period, regardless of when work on each individual project was started or when payment was made to the contractors. For some categories, estimates are derived by distributing the total construction cost of the project by means of historic construction progress patterns.

ADDITIONAL DATA

Additional data related to the value of construction put in place can be found in the following publications:

- Current Construction Reports, *Value of Construction Put in Place: May 2001*, C30/01-5, U.S. Department of Commerce, U.S. Census Bureau, Washington, DC, 2001; contains annual data for 1991 to 2000 and monthly data for 1998 to 2000.
- Current Construction Reports, *Value of Construction Put in Place: June 2001*, C30/01-6, U.S. Department of Commerce, U.S. Census Bureau, Washington, DC, 2001; contains annual value of construction put in place for private nonresidential buildings by geographic area and detailed types of construction for 1993 to 2000.
- Current Construction Reports, *Value of New Construction Put in Place: October 1992*, C30/92-10,

U.S. Department of Commerce, U.S. Census Bureau, Washington, DC, 1992; contains total time and monthly progress from start to completion for private nonresidential buildings and for state and local construction.

- Current Construction Reports, *Value of New Construction Put in Place in the United States, 1964 to 1980*, C30-80 supplement, U.S. Department of Commerce, U.S. Census Bureau, Washington, DC, 1981; contains annual data for 1915 to 1963.
- Current Construction Reports Special Study, *Expenditures for Nonresidential Improvements and Repairs: 1992*, U.S. Department of Commerce, U.S. Census Bureau, Washington, DC, 1994.

Table 1. Annual Value of Construction Put in Place: 1996-2000

[Millions of dollars]

Type of construction	Current dollars					Constant (1996) dollars				
	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000
Total construction	615,900	653,429	704,724	763,786	815,414	615,797	632,680	664,244	692,281	706,899
Private construction	476,638	502,734	551,383	596,280	640,554	476,650	487,197	519,859	540,159	555,089
Residential buildings	281,115	289,014	314,607	350,562	374,274	281,207	280,720	297,960	317,232	323,708
New housing units	191,113	198,063	223,983	251,272	264,864	191,212	192,386	212,068	227,461	229,103
1 unit	170,790	175,179	199,409	223,837	236,788	170,865	170,154	188,785	202,615	204,812
2 units or more	20,324	22,883	24,574	27,434	28,076	20,347	22,232	23,283	24,847	24,292
Improvements	90,002	90,951	90,624	99,290	109,410	89,996	88,334	85,892	89,771	94,605
Nonresidential buildings	155,858	173,875	190,710	193,935	210,140	155,813	167,610	177,644	173,418	179,654
Industrial	38,166	37,624	40,484	32,639	32,073	38,161	36,267	37,720	29,204	27,419
Office	27,886	34,305	42,226	47,582	55,686	27,875	33,058	39,333	42,549	47,594
Hotels, motels	10,912	12,898	14,816	15,951	16,396	10,909	12,438	13,794	14,273	14,027
Other commercial	48,188	51,809	53,598	56,915	61,453	48,170	49,948	49,915	50,867	52,539
Religious	4,534	5,777	6,594	7,371	8,068	4,531	5,565	6,139	6,590	6,898
Educational	6,742	8,693	9,698	9,645	11,356	6,737	8,375	9,039	8,621	9,707
Hospital and institutional	11,780	13,546	13,793	13,530	14,575	11,778	13,066	12,853	12,101	12,459
Miscellaneous ¹	7,650	9,223	9,501	10,301	10,533	7,650	8,892	8,850	9,214	9,010
Farm nonresidential	3,658	3,815	4,284	5,008	5,158	3,657	3,675	3,989	4,474	4,407
Public utilities	33,202	33,638	39,212	44,066	48,084	33,167	32,883	37,818	42,534	44,749
Telecommunications	11,810	12,416	12,458	18,404	17,994	11,791	12,159	12,188	18,305	17,497
Other public utilities	21,391	21,222	26,754	25,662	30,089	21,376	20,725	25,631	24,229	27,253
Railroads	4,398	4,922	5,736	4,670	4,226	4,391	4,745	5,463	4,311	3,750
Electric light and power	11,256	11,325	12,381	14,585	21,111	11,253	11,122	11,883	13,892	19,251
Gas	4,722	4,006	7,372	4,918	3,750	4,720	3,911	7,072	4,625	3,354
Petroleum pipelines	1,015	969	1,265	1,489	1,003	1,013	947	1,213	1,401	897
All other private ²	2,805	2,392	2,570	2,709	2,899	2,806	2,309	2,447	2,501	2,570
Public construction	139,263	150,695	153,341	167,507	174,860	139,147	145,483	144,385	152,121	151,810
Buildings	63,471	69,860	71,776	76,542	82,275	63,446	67,400	66,920	68,474	70,390
Housing and redevelopment ..	5,048	5,299	4,922	5,138	5,228	5,046	5,150	4,663	4,653	4,521
Industrial	1,389	999	1,010	925	1,159	1,390	965	941	827	991
Educational	28,590	33,552	34,828	38,966	43,560	28,577	32,340	32,431	34,821	37,237
Hospital	4,617	4,977	3,906	3,932	4,007	4,617	4,802	3,641	3,516	3,427
Other ³	23,826	25,033	27,110	27,582	28,321	23,815	24,144	25,245	24,657	24,214
Highways and streets	39,464	42,602	45,565	51,374	52,088	39,412	41,093	43,085	46,858	45,230
Military facilities	2,591	2,556	2,530	2,130	2,337	2,593	2,466	2,377	1,926	2,016
Conservation and development ..	6,008	5,625	5,452	5,993	6,014	6,000	5,431	5,223	5,594	5,449
Sewer systems	9,798	10,515	9,367	10,343	10,287	9,778	10,152	8,976	9,653	9,324
Water supply facilities	5,618	6,493	6,290	6,844	6,928	5,609	6,347	6,035	6,431	6,160
Miscellaneous public ⁴	12,313	13,045	12,361	14,280	14,930	12,310	12,594	11,767	13,185	13,241

¹Includes amusement and recreational buildings, bus and airline terminals, animal hospitals and shelters, etc.

²Includes privately owned streets and bridges, parking areas, sewer and water facilities, parks and playgrounds, golf courses, airfields, etc.

³Includes general administrative buildings, prisons, police and fire stations, courthouses, civic centers, passenger terminals, space facilities, postal facilities, etc.

⁴Includes open amusement and recreational facilities, power generating facilities, transit systems, airfields, open parking facilities, etc.

Table 2. Annual Value of Public Construction Put in Place: 1996-2000

[Millions of dollars]

Type of construction	Current dollars					Constant (1996) dollars				
	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000
Total public construction	139,263	150,695	153,341	167,507	174,860	139,147	145,483	144,385	152,121	151,810
State and local construction	123,938	136,608	139,023	153,505	161,053	123,819	131,891	130,880	139,348	139,704
Total buildings	57,240	63,752	65,750	71,073	77,203	57,212	61,508	61,297	63,578	66,049
Housing and redevelopment	4,367	4,622	4,384	4,714	4,846	4,365	4,492	4,153	4,269	4,190
Educational	28,578	33,533	34,813	38,950	43,531	28,565	32,322	32,417	34,807	37,212
Hospital	3,457	3,725	2,897	3,081	3,372	3,457	3,596	2,700	2,754	2,884
Other ¹	20,838	21,872	23,656	24,327	25,454	20,826	21,099	22,027	21,749	21,763
Highways and streets	39,096	42,347	45,308	51,123	51,790	39,045	40,847	42,842	46,629	44,971
Conservation and development ..	2,163	2,256	1,915	1,988	1,985	2,159	2,178	1,836	1,855	1,798
Sewer systems	9,798	10,515	9,367	10,343	10,287	9,778	10,152	8,976	9,653	9,324
Water supply facilities	5,618	6,493	6,290	6,844	6,928	5,609	6,347	6,035	6,431	6,160
Miscellaneous nonbuilding ²	10,022	11,245	10,393	12,135	12,859	10,017	10,859	9,894	11,202	11,402
Federal construction	15,325	14,087	14,318	14,002	13,807	15,328	13,592	13,505	12,774	12,106
Total buildings	6,230	6,107	6,026	5,470	5,072	6,234	5,892	5,624	4,896	4,341
Housing	681	677	538	424	382	682	658	510	384	331
Industrial	1,389	999	1,010	925	1,159	1,390	965	941	827	991
Educational	12	19	15	15	29	12	19	14	14	25
Hospital	1,159	1,251	1,009	850	634	1,161	1,206	941	762	543
Other ³	2,989	3,161	3,454	3,255	2,867	2,989	3,045	3,217	2,909	2,452
Highways and streets	368	255	257	251	298	368	246	243	229	258
Military facilities	2,591	2,556	2,530	2,130	2,337	2,593	2,466	2,377	1,926	2,016
Conservation and development ..	3,845	3,368	3,536	4,005	4,029	3,841	3,252	3,387	3,739	3,651
Miscellaneous public ⁴	2,291	1,800	1,969	2,145	2,071	2,293	1,735	1,873	1,983	1,839

¹Includes general administrative buildings, prisons, police and fire stations, courthouses, passenger terminals, civic centers, etc.

²Includes open amusement and recreational facilities, power generating facilities, transit systems, airfields, open parking facilities, etc.

³Includes federal office buildings, prisons, courthouses, space facilities, postal facilities, etc.

⁴Includes federal airport facilities, fish and wildlife preservation facilities, VA cemeteries, etc.

Table 3. Monthly Value of Construction Put in Place—Not Seasonally Adjusted in Current Dollars

[Millions of dollars]

Period	Total construction	Private construction															All other private ⁵	
		Total ¹	Residential buildings					Nonresidential buildings								Public utilities ⁴		
			Total ²	New housing units			Total	Industrial	Office	Hotels, motels	Other commercial	Religious	Educational	Hospital and institutional	Miscellaneous ³	Total		Telecommunications
				Total	1 unit	2 units or more												
YEAR TO DATE																		
August 2000	529,464	416,644	245,964	175,490	156,664	18,826	135,985	20,804	35,206	11,087	39,811	5,238	7,487	9,294	7,058	(NA)	10,794	1,782
August 2001	563,108	436,598	256,154	181,172	160,890	20,282	140,166	21,681	37,184	9,977	41,020	5,389	8,105	10,220	6,591	(NA)	(NA)	1,690
Percent change	6	5	4	3	3	8	3	4	6	-10	3	3	8	10	-7	(NA)	(NA)	-5
MONTHLY DATA																		
1999: August	72,375	55,360	33,754	23,545	21,068	2,477	16,916	2,767	4,169	1,277	5,127	669	930	1,137	840	(NA)	1,747	239
September	72,504	55,426	33,907	23,362	20,938	2,424	17,027	2,739	4,325	1,266	5,199	638	828	1,164	867	(NA)	1,694	232
October	70,676	55,001	33,756	22,959	20,582	2,376	16,689	2,597	4,184	1,251	5,143	680	800	1,180	856	(NA)	1,818	226
November	68,448	53,786	32,343	22,476	20,186	2,290	16,589	2,547	4,015	1,326	5,225	641	803	1,163	869	(NA)	1,934	237
December	60,716	47,681	27,107	19,804	17,553	2,251	15,651	2,594	3,792	1,308	4,624	587	776	1,100	871	(NA)	1,994	254
2000: January	55,427	43,986	26,065	18,625	16,492	2,133	14,443	2,141	3,614	1,323	4,223	577	736	1,034	796	(NA)	1,166	173
February	54,410	43,316	24,013	17,865	15,758	2,107	15,500	2,316	3,909	1,314	4,647	620	783	1,061	851	(NA)	1,112	197
March	62,364	49,697	28,947	21,164	18,750	2,415	16,269	2,460	4,220	1,426	4,641	628	843	1,135	916	(NA)	1,484	216
April	64,670	51,088	30,172	22,036	19,585	2,451	16,610	2,530	4,366	1,404	4,784	626	851	1,173	877	(NA)	1,213	204
May	70,259	55,626	33,292	23,247	20,743	2,504	17,815	2,807	4,784	1,407	5,066	637	1,007	1,193	914	(NA)	1,443	215
June	72,991	57,340	34,596	24,097	21,552	2,545	18,130	2,902	4,653	1,426	5,345	691	1,016	1,200	899	(NA)	1,597	233
July	72,395	56,740	34,229	24,187	21,882	2,305	18,095	2,793	4,650	1,394	5,370	719	1,070	1,223	877	(NA)	1,332	241
August	76,948	58,851	34,650	24,270	21,903	2,367	19,123	2,857	5,009	1,394	5,736	741	1,182	1,276	929	(NA)	1,447	304
September	77,025	58,994	34,302	23,788	21,491	2,297	19,054	2,796	5,156	1,362	5,799	722	1,022	1,295	903	(NA)	1,818	302
October	75,332	58,846	34,271	23,320	20,961	2,359	19,158	2,910	5,103	1,364	5,780	778	1,006	1,323	894	(NA)	1,631	300
November	70,999	56,251	32,628	22,632	20,286	2,346	18,452	2,850	5,177	1,327	5,208	705	961	1,342	882	(NA)	1,753	277
December	62,594	49,819	27,109	19,634	17,385	2,249	17,491	2,713	5,044	1,255	4,856	625	880	1,322	796	(NA)	1,999	238
2001: January	59,043	47,316	26,285	18,600	16,417	2,183	16,695	2,715	4,721	1,237	4,540	618	864	1,255	746	(NA)	1,675	193
February	57,121	45,548	24,588	18,015	15,800	2,215	16,420	2,476	4,571	1,241	4,661	602	848	1,231	789	(NA)	1,604	196
March	64,851	52,066	29,450	21,047	18,676	2,371	17,842	2,739	5,004	1,273	5,072	624	934	1,313	884	(NA)	1,780	191
April ^f	69,305	54,454	31,125	22,199	19,729	2,470	17,968	2,761	4,894	1,249	5,276	657	987	1,288	856	(NA)	1,773	208
May ^f	75,287	58,419	34,993	24,046	21,227	2,819	18,021	2,697	4,786	1,237	5,358	690	1,057	1,346	851	(NA)	2,097	210
June ^f	78,219	59,909	36,579	25,226	22,460	2,766	18,178	2,821	4,674	1,288	5,423	700	1,102	1,312	858	(NA)	1,934	213
July ^f	78,441	58,998	36,411	25,955	23,224	2,732	17,532	2,811	4,329	1,239	5,275	724	1,133	1,234	788	(NA)	1,955	229
August ^f	80,841	59,887	36,724	26,085	23,358	2,727	17,510	2,660	4,206	1,215	5,415	774	1,180	1,241	819	(NA)	(NA)	250
PERCENT CHANGE																		
July 2001- August 2001	3	2	1	1	1	(Z)	(Z)	-5	-3	-2	3	7	4	1	4	(NA)	(NA)	9

See footnotes at end of table.

Table 3. **Monthly Value of Construction Put in Place—Not Seasonally Adjusted in Current Dollars—Con.**

[Millions of dollars]

Period	Public construction												
	Total	Buildings						Highways and streets	Military facilities	Conservation and development	Sewer systems	Water supply facilities	Miscellaneous public ⁷
		Total	Housing and redevelopment	Industrial	Educational	Hospital	Other public buildings ⁶						
YEAR TO DATE													
August 2000	112,820	53,633	3,313	766	28,640	2,661	18,254	33,434	1,531	3,749	6,839	4,441	9,194
August 2001	126,510	60,908	4,033	954	32,357	2,585	20,979	37,454	1,547	4,457	6,763	5,289	10,092
Percent change	12	14	22	25	13	-3	15	12	1	19	-1	19	10
MONTHLY DATA													
1999: August	17,015	7,441	463	70	4,146	319	2,444	5,818	142	587	967	656	1,406
September	17,078	7,254	492	112	3,783	367	2,501	5,917	207	769	960	632	1,338
October	15,674	6,777	460	45	3,464	335	2,473	5,359	151	411	971	627	1,378
November	14,662	6,464	420	72	3,206	331	2,435	4,651	172	554	913	584	1,324
December	13,035	6,091	424	88	2,938	325	2,317	3,708	210	548	850	499	1,130
2000: January	11,441	5,822	361	93	2,992	306	2,071	2,924	139	425	720	500	911
February	11,095	5,881	342	96	3,016	300	2,127	2,349	212	478	713	512	950
March	12,667	6,145	409	92	3,151	308	2,185	3,318	212	499	794	498	1,200
April	13,582	6,426	431	91	3,237	344	2,323	3,928	180	462	930	564	1,092
May	14,633	6,749	436	89	3,509	367	2,348	4,490	198	440	903	607	1,247
June	15,651	7,318	450	98	4,008	360	2,403	4,855	196	501	981	565	1,235
July	15,655	7,334	427	98	4,180	334	2,295	5,095	188	427	873	542	1,197
August	18,097	7,958	457	109	4,547	342	2,502	6,474	206	518	927	652	1,363
September	18,031	7,708	480	125	4,157	374	2,573	6,179	269	797	918	654	1,506
October	16,485	7,398	497	76	3,797	336	2,693	5,271	129	502	927	679	1,580
November	14,748	6,930	488	93	3,522	341	2,486	4,181	225	479	867	619	1,446
December	12,775	6,605	451	99	3,444	295	2,315	3,024	183	488	737	535	1,203
2001: January	11,726	6,241	447	124	3,163	309	2,199	2,570	171	509	697	484	1,053
February	11,573	6,071	401	103	3,049	296	2,222	2,553	161	536	670	513	1,069
March	12,785	6,477	422	114	3,236	308	2,397	3,188	184	569	735	570	1,063
April ^r	14,851	7,222	509	130	3,623	307	2,654	4,156	200	500	860	696	1,218
May ^r	16,868	7,781	555	108	4,017	319	2,782	5,374	192	601	877	667	1,376
June ^r	18,309	8,213	554	127	4,348	345	2,839	6,246	216	571	933	734	1,399
July ^r	19,444	8,959	534	124	5,106	344	2,851	6,608	203	525	951	801	1,397
August ^p	20,954	9,944	612	125	5,814	358	3,036	6,760	221	647	1,041	824	1,516
PERCENT CHANGE													
July 2001- August 2001	8	11	15	1	14	4	6	2	9	23	9	3	9

NA Not available, but estimates are included in totals. ^pPreliminary. ^rRevised. ^Z Less than 0.5 percent.

¹Includes farm nonresidential and other private categories, not shown separately. ²Includes residential improvements, not shown separately. ³Includes amusement and recreational buildings, bus and airline terminals, animal hospitals and shelters, etc. ⁴Includes gas, electric, railroad, and petroleum pipelines, not shown separately. ⁵Includes privately owned streets and bridges, parking areas, sewer and water facilities, parks and playgrounds, golf courses, airfields, etc. ⁶Includes general administrative buildings, prisons, police and fire stations, courthouses, civic centers, passenger terminals, space facilities, postal facilities, etc. ⁷Includes open amusement and recreational facilities, power generating facilities, transit systems, airfields, open parking facilities, etc.

Table 4. Monthly Value of Construction Put in Place—Seasonally Adjusted Annual Rate in Current Dollars

[Millions of dollars]

Period	Total construction	Private construction																	All other private ⁵	
		Total ¹	Residential buildings					Nonresidential buildings										Public utilities ⁴		
			Total ²	New housing units			Total	Industrial	Office	Hotels, motels	Other commercial	Religious	Educational	Hospital and institutional	Miscellaneous ³	Total	Telecommunications			
				Total	1 unit	2 units or more														
1999: August	758,803	593,994	355,037	251,481	223,334	28,148	189,778	31,771	48,242	14,875	55,129	7,367	9,314	13,290	9,790	(NA)	19,649	2,509		
September	763,567	598,206	359,693	252,451	224,534	27,917	190,165	30,863	49,380	14,723	55,502	6,828	9,307	13,545	10,017	(NA)	19,486	2,512		
October	771,515	604,152	364,647	253,337	225,973	27,364	189,056	28,988	48,886	15,073	55,746	7,423	9,663	13,583	9,694	(NA)	20,486	2,349		
November	797,610	622,396	371,890	258,593	231,141	27,453	193,167	29,280	46,917	15,893	60,351	7,011	10,102	13,452	10,161	(NA)	21,390	2,707		
December	811,436	631,061	378,359	264,983	236,667	28,316	193,676	29,872	46,768	15,823	59,282	7,160	10,635	13,321	10,815	(NA)	21,342	3,032		
2000: January	820,048	632,770	382,902	269,740	240,758	28,982	196,617	29,293	47,454	17,327	60,324	7,699	10,567	13,223	10,730	(NA)	18,343	2,396		
February	820,264	645,309	387,725	272,076	244,629	27,446	204,136	29,625	48,713	16,274	65,598	8,048	11,128	13,487	11,263	(NA)	15,157	2,925		
March	832,999	648,725	386,936	274,281	244,561	29,719	205,510	31,101	51,837	17,061	61,263	8,222	11,183	13,726	11,115	(NA)	17,203	2,882		
April	817,654	639,303	381,142	272,536	243,037	29,499	205,237	31,854	53,352	16,970	60,299	7,955	10,722	13,923	10,162	(NA)	16,121	2,654		
May	814,016	640,622	376,813	270,515	241,903	28,611	209,758	33,319	54,880	16,598	60,434	7,823	11,692	14,205	10,807	(NA)	17,012	2,670		
June	802,668	634,506	371,020	266,468	237,925	28,543	209,399	33,837	54,529	16,232	60,911	8,466	10,560	14,356	10,510	(NA)	17,789	2,762		
July	792,253	627,733	364,140	260,266	233,407	26,859	211,555	33,986	55,805	16,432	60,388	8,723	10,852	15,038	10,332	(NA)	16,698	2,720		
August	803,968	630,656	364,039	258,652	231,979	26,673	213,266	32,623	57,461	15,961	61,678	7,998	11,834	14,922	10,790	(NA)	15,648	3,165		
September	815,410	638,851	364,372	257,355	230,675	26,680	214,027	31,384	59,380	16,273	61,969	8,064	11,469	15,053	10,434	(NA)	21,072	3,280		
October	820,805	644,836	370,256	257,459	230,345	27,114	215,534	32,125	58,992	16,004	62,768	8,166	12,119	15,220	10,140	(NA)	17,955	3,121		
November	826,746	651,066	374,281	259,935	232,061	27,874	215,342	33,265	60,552	15,862	60,035	7,662	12,103	15,528	10,335	(NA)	19,699	3,166		
December	838,731	660,849	379,593	263,547	234,931	28,615	217,998	31,398	63,114	15,659	62,120	7,793	12,051	16,003	9,860	(NA)	23,043	2,829		
2001: January	859,815	673,715	386,088	269,061	239,661	29,399	223,788	35,878	60,849	15,940	64,553	8,081	12,396	16,049	10,041	(NA)	24,272	2,681		
February	869,334	681,826	398,863	275,425	245,596	29,829	220,158	33,386	58,922	15,939	65,646	8,143	12,077	15,685	10,359	(NA)	22,920	2,914		
March	869,140	681,176	395,080	273,876	244,392	29,484	225,853	34,823	61,840	15,121	66,952	8,092	12,394	15,900	10,731	(NA)	21,657	2,549		
April ^f	870,826	677,429	392,160	274,700	244,827	29,873	220,579	34,662	58,842	14,902	66,093	8,373	12,428	15,318	9,961	(NA)	22,777	2,709		
May ^f	869,574	670,838	394,330	278,801	246,823	31,978	211,694	31,943	55,008	14,508	63,593	8,377	12,201	16,025	10,040	(NA)	24,358	2,618		
June ^f	861,571	665,322	391,508	278,540	247,493	31,047	210,782	32,966	54,984	14,956	61,858	8,737	11,574	15,666	10,043	(NA)	22,379	2,545		
July ^f	854,640	653,315	388,874	279,300	247,719	31,580	203,968	33,269	51,842	14,546	59,546	8,668	11,585	15,172	9,340	(NA)	23,279	2,609		
August ^p	845,521	644,300	387,327	278,585	247,829	30,756	196,682	30,842	48,572	14,169	58,544	8,651	11,815	14,562	9,528	(NA)	(NA)	2,593		
PERCENT CHANGE																				
July 2001- August 2001	-1	-1	(Z)	(Z)	(Z)	-3	-4	-7	-6	-3	-2	(Z)	2	-4	2	(NA)	(NA)	-1		

See footnotes at end of table.

∞ Table 4. **Monthly Value of Construction Put in Place—Seasonally Adjusted Annual Rate in Current Dollars—Con.**

[Millions of dollars]

Period	Public construction												
	Total	Buildings						Highways and streets	Military facilities	Conservation and development	Sewer systems	Water supply facilities	Miscellaneous public ⁷
		Total	Housing and redevelopment	Industrial	Educational	Hospital	Other public buildings ⁶						
1999: August	164,809	77,086	5,496	853	39,312	3,794	27,630	48,181	1,643	6,287	10,256	7,191	14,165
September	165,361	77,310	5,290	1,009	39,788	3,960	27,263	49,999	1,932	6,201	9,952	6,910	13,056
October	167,364	78,004	5,149	643	40,043	3,904	28,265	50,010	2,213	5,656	10,298	6,442	14,742
November	175,213	78,911	4,827	910	40,845	3,929	28,400	55,147	2,010	6,682	10,358	6,585	15,520
December	180,375	78,619	5,126	1,011	39,696	3,923	28,862	59,322	2,410	7,128	11,235	6,497	15,164
2000: January	187,278	81,349	4,810	1,240	42,947	4,055	28,297	65,712	1,849	6,182	10,532	7,410	14,244
February	174,955	82,618	4,496	1,287	44,238	3,797	28,801	49,535	3,100	7,022	10,495	7,468	14,716
March	184,274	82,160	5,168	1,064	44,122	3,814	27,992	58,301	2,467	6,589	10,643	6,914	17,199
April	178,351	81,160	5,353	1,163	42,083	4,313	28,248	56,185	2,289	5,845	12,013	6,920	13,939
May	173,394	81,473	5,139	1,059	43,538	4,255	27,483	51,903	2,329	5,314	10,515	6,979	14,881
June	168,162	80,489	5,210	1,078	42,641	4,131	27,428	48,431	2,262	5,814	10,809	6,491	13,868
July	164,520	79,082	5,132	1,161	41,911	3,998	26,881	49,628	2,196	4,818	9,945	5,961	12,890
August	173,311	81,979	5,342	1,308	43,038	4,055	28,236	52,777	2,386	5,568	9,719	7,137	13,747
September	176,559	82,233	5,275	1,099	43,751	4,042	28,067	53,923	2,509	6,425	9,617	7,156	14,695
October	175,969	85,163	5,517	1,116	44,020	3,805	30,705	48,764	1,883	6,815	9,703	7,000	16,640
November	175,680	84,673	5,575	1,177	44,776	4,151	28,994	48,858	2,629	5,789	9,831	6,989	16,911
December	177,883	86,184	5,578	1,201	46,745	3,643	29,016	50,189	2,107	6,339	10,009	6,950	16,105
2001: January	186,100	87,358	5,852	1,587	46,001	3,875	30,043	55,368	2,270	7,381	10,166	7,239	16,318
February	187,508	86,785	5,482	1,392	45,732	3,925	30,254	56,204	2,342	7,838	10,352	7,550	16,437
March	187,964	87,547	5,392	1,351	45,946	3,953	30,904	57,443	2,131	7,573	10,076	7,919	15,275
April ^f	193,397	91,607	6,240	1,605	47,773	3,802	32,188	57,717	2,530	6,332	10,997	8,654	15,560
May ^f	198,736	94,405	6,535	1,329	49,953	3,844	32,743	60,437	2,274	7,216	10,282	7,716	16,406
June ^f	196,249	91,120	6,488	1,388	46,754	3,949	32,542	61,534	2,477	6,592	10,410	8,463	15,652
July ^f	201,326	96,738	6,381	1,496	51,451	4,032	33,378	61,758	2,371	5,955	10,664	8,790	15,049
August ^p	201,221	100,904	7,062	1,410	54,345	4,235	33,852	55,791	2,550	6,908	10,883	8,920	15,266
PERCENT CHANGE													
July 2001- August 2001	(Z)	4	11	-6	6	5	1	-10	8	16	2	1	1

NA Not available, but estimates are included in totals. ^pPreliminary. ^rRevised. Z Less than 0.5 percent.

¹Includes farm nonresidential and other private categories, not shown separately. ²Includes residential improvements, not shown separately. ³Includes amusement and recreational buildings, bus and airline terminals, animal hospitals and shelters, etc. ⁴Includes gas, electric, railroad, and petroleum pipelines, not shown separately. ⁵Includes privately owned streets and bridges, parking areas, sewer and water facilities, parks and playgrounds, golf courses, airfields, etc. ⁶Includes general administrative buildings, prisons, police and fire stations, courthouses, civic centers, passenger terminals, space facilities, postal facilities, etc. ⁷Includes open amusement and recreational facilities, power generating facilities, transit systems, airfields, open parking facilities, etc.

Table 5. Monthly Value of Construction Put in Place—Seasonally Adjusted Annual Rate in 1996 Dollars

[Millions of dollars]

Period	Total construction	Private construction																All other private ⁵	
		Total ¹	Residential buildings					Nonresidential buildings									Public utilities ⁴		
			Total ²	New housing units			Total	Industrial	Office	Hotels, motels	Other commercial	Religious	Educational	Hospital and institutional	Miscellaneous ³	Total	Telecommunications		
				Total	1 unit	2 units or more													
1999: August	684,774	535,781	319,853	226,560	201,201	25,358	168,841	28,266	42,920	13,234	49,047	6,555	8,286	11,824	8,710	(NA)	19,610	2,302	
September	688,784	539,258	323,756	227,228	202,101	25,128	169,186	27,458	43,933	13,099	49,379	6,075	8,280	12,050	8,912	(NA)	19,467	2,306	
October	693,122	542,648	327,037	227,208	202,667	24,542	167,306	25,653	43,262	13,339	49,333	6,569	8,551	12,021	8,579	(NA)	20,486	2,147	
November	713,575	556,749	332,044	230,887	206,376	24,511	170,042	25,775	41,300	13,990	53,126	6,171	8,893	11,842	8,945	(NA)	21,390	2,463	
December	723,543	562,585	336,618	235,750	210,558	25,192	169,891	26,204	41,025	13,879	52,002	6,280	9,329	11,685	9,487	(NA)	21,321	2,752	
2000: January	720,341	554,433	333,829	235,170	209,902	25,268	170,379	25,384	41,121	15,014	52,274	6,672	9,157	11,458	9,298	(NA)	18,215	2,166	
February	719,031	564,728	338,329	237,413	213,464	23,950	176,588	25,627	42,139	14,078	56,745	6,962	9,627	11,667	9,743	(NA)	14,948	2,630	
March	731,241	568,450	337,935	239,546	213,591	25,956	177,930	26,928	44,881	14,771	53,042	7,119	9,682	11,884	9,624	(NA)	16,966	2,594	
April	714,807	558,658	332,875	238,023	212,259	25,764	176,776	27,436	45,954	14,617	51,937	6,852	9,235	11,992	8,753	(NA)	15,758	2,370	
May	709,169	558,056	327,949	235,435	210,534	24,901	180,204	28,624	47,148	14,260	51,919	6,721	10,045	12,203	9,284	(NA)	16,581	2,376	
June	697,476	551,061	321,508	230,908	206,174	24,734	179,588	29,019	46,765	13,921	52,239	7,261	9,056	12,312	9,014	(NA)	17,339	2,461	
July	685,157	542,810	314,456	224,755	201,560	23,194	180,508	28,998	47,615	14,021	51,526	7,443	9,259	12,831	8,816	(NA)	16,228	2,407	
August	694,146	544,485	314,097	223,168	200,155	23,014	181,503	27,764	48,903	13,584	52,492	6,807	10,071	12,699	9,183	(NA)	15,221	2,793	
September	703,256	551,028	313,573	221,476	198,515	22,960	181,841	26,664	50,451	13,826	52,650	6,851	9,744	12,790	8,865	(NA)	20,479	2,890	
October	705,695	554,513	318,089	221,185	197,891	23,294	182,656	27,225	49,993	13,562	53,193	6,920	10,271	12,899	8,593	(NA)	17,281	2,738	
November	708,897	558,316	320,446	222,547	198,682	23,865	182,030	28,119	51,185	13,408	50,748	6,477	10,231	13,126	8,736	(NA)	18,869	2,775	
December	717,155	564,809	323,333	224,486	200,112	24,374	183,809	26,474	53,216	13,203	52,378	6,571	10,161	13,493	8,314	(NA)	22,051	2,482	
2001: January	733,045	573,632	326,916	227,824	202,931	24,894	188,374	30,201	51,220	13,418	54,337	6,802	10,434	13,509	8,452	(NA)	23,227	2,355	
February	738,460	578,166	336,310	232,230	207,079	25,151	184,696	28,008	49,432	13,372	55,073	6,831	10,132	13,159	8,690	(NA)	21,891	2,559	
March	733,051	574,277	331,443	229,761	205,027	24,735	188,211	29,019	51,533	12,601	55,793	6,743	10,329	13,250	8,942	(NA)	20,646	2,207	
April ^f	735,978	571,952	328,993	230,453	205,392	25,061	184,277	28,957	49,158	12,450	55,215	6,995	10,383	12,797	8,321	(NA)	21,692	2,360	
May ^f	733,543	565,160	329,983	233,307	206,547	26,760	176,559	26,641	45,878	12,100	53,038	6,987	10,176	13,365	8,374	(NA)	23,088	2,281	
June ^f	724,181	559,224	328,171	233,479	207,454	26,025	174,923	27,357	45,629	12,412	51,335	7,250	9,605	13,001	8,334	(NA)	20,895	2,192	
July ^f	719,244	549,706	325,963	234,116	207,644	26,471	169,691	27,678	43,130	12,101	49,539	7,212	9,638	12,622	7,771	(NA)	21,776	2,253	
August ^p	709,989	540,603	323,311	232,542	206,869	25,672	163,493	25,637	40,375	11,778	48,665	7,192	9,821	12,105	7,920	(NA)	(NA)	2,237	
PERCENT CHANGE																			
July 2001- August 2001	-1	-2	-1	-1	(Z)	-3	-4	-7	-6	-3	-2	(Z)	2	-4	2	(NA)	(NA)	-1	

See footnotes at end of table.

Table 5. **Monthly Value of Construction Put in Place—Seasonally Adjusted Annual Rate in 1996 Dollars—Con.**

[Millions of dollars]

Period		Public construction												
		Total	Buildings						Highways and streets	Military facilities	Conservation and development	Sewer systems	Water supply facilities	Miscellaneous public ⁷
			Total	Housing and redevelopment	Industrial	Educational	Hospital	Other public buildings ⁶						
1999:	August	148,993	68,643	4,951	759	34,975	3,376	24,582	43,801	1,477	5,821	9,496	6,759	12,995
	September	149,525	68,836	4,762	898	35,399	3,523	24,255	45,495	1,739	5,747	9,224	6,495	11,989
	October	150,475	69,091	4,618	569	35,436	3,455	25,013	45,135	1,977	5,232	9,526	6,037	13,475
	November	156,825	69,525	4,310	801	35,955	3,459	25,000	49,503	1,787	6,170	9,564	6,154	14,122
	December	160,957	69,028	4,560	887	34,821	3,442	25,317	53,060	2,135	6,569	10,355	6,050	13,761
2000:	January	165,908	70,518	4,194	1,075	37,216	3,514	24,521	58,724	1,626	5,661	9,645	6,855	12,879
	February	154,303	71,503	3,923	1,113	38,268	3,284	24,915	44,071	2,719	6,384	9,541	6,852	13,234
	March	162,791	71,173	4,514	922	38,201	3,302	24,235	51,962	2,166	5,990	9,676	6,343	15,480
	April	156,149	69,969	4,675	1,002	36,247	3,715	24,330	49,285	1,989	5,309	10,911	6,240	12,445
	May	151,113	70,052	4,472	909	37,404	3,656	23,610	45,172	2,013	4,839	9,576	6,220	13,240
	June	146,415	69,076	4,515	924	36,571	3,543	23,523	42,077	1,953	5,314	9,880	5,754	12,360
	July	142,347	67,529	4,431	990	35,760	3,411	22,936	42,893	1,885	4,368	9,017	5,248	11,407
	August	149,662	69,832	4,609	1,113	36,628	3,451	24,030	45,576	2,046	5,029	8,779	6,266	12,133
	September	152,228	69,925	4,539	934	37,171	3,435	23,846	46,486	2,146	5,789	8,664	6,272	12,947
	October	151,182	72,237	4,740	946	37,305	3,224	26,021	41,786	1,606	6,129	8,725	6,103	14,597
	November	150,580	71,636	4,773	995	37,849	3,509	24,509	41,759	2,235	5,206	8,841	6,083	14,821
	December	152,347	72,715	4,751	1,013	39,414	3,072	24,465	42,933	1,788	5,711	9,017	6,054	14,127
2001:	January	159,413	73,563	4,955	1,336	38,721	3,262	25,289	47,445	1,927	6,655	9,167	6,317	14,340
	February	160,294	72,829	4,622	1,168	38,365	3,293	25,381	48,079	1,985	7,061	9,326	6,583	14,431
	March	158,774	72,986	4,524	1,126	38,289	3,294	25,753	48,029	1,779	6,804	9,053	6,898	13,225
	April ^f	164,026	76,552	5,234	1,340	39,911	3,177	26,890	48,665	2,125	5,705	9,907	7,518	13,554
	May ^f	168,383	78,755	5,468	1,109	41,662	3,206	27,309	51,045	1,908	6,483	9,238	6,663	14,291
	June ^f	164,957	75,672	5,438	1,152	38,800	3,277	27,006	51,450	2,064	5,849	9,237	7,203	13,481
	July ^f	169,538	80,521	5,349	1,244	42,805	3,354	27,769	51,767	1,981	5,298	9,488	7,487	12,996
	August ^p	169,386	83,901	5,895	1,172	45,175	3,520	28,139	46,765	2,128	6,146	9,682	7,592	13,171
PERCENT CHANGE														
	July 2001- August 2001	(Z)	4	10	-6	6	5	1	-10	7	16	2	1	1

NA Not available, but estimates are included in totals. ^pPreliminary. ^rRevised. Z Less than 0.5 percent.

¹Includes farm nonresidential and other private categories, not shown separately. ²Includes residential improvements, not shown separately. ³Includes amusement and recreational buildings, bus and airline terminals, animal hospitals and shelters, etc. ⁴Includes gas, electric, railroad, and petroleum pipelines, not shown separately. ⁵Includes privately owned streets and bridges, parking areas, sewer and water facilities, parks and playgrounds, golf courses, airfields, etc. ⁶Includes general administrative buildings, prisons, police and fire stations, courthouses, civic centers, passenger terminals, space facilities, postal facilities, etc. ⁷Includes open amusement and recreational facilities, power generating facilities, transit systems, airfields, open parking facilities, etc.

Table 6. Monthly Value of Construction Put in Place—Not Seasonally Adjusted in 1996 Dollars

[Millions of dollars]

Period	Total construction	Private construction																All other private ⁵	
		Total ¹	Residential buildings					Nonresidential buildings									Public utilities ⁴		
			Total ²	New housing units			Total	Industrial	Office	Hotels, motels	Other commercial	Religious	Educational	Hospital and institutional	Miscellaneous ³	Total	Telecommunications		
				Total	1 unit	2 units or more													
YEAR TO DATE																			
August 2000	461,260	362,757	213,719	152,496	136,132	16,364	116,885	17,882	30,261	9,535	34,216	4,501	6,433	7,990	6,069	(NA)	10,568	1,590	
August 2001	475,234	368,227	214,923	152,016	134,994	17,019	116,965	18,092	31,034	8,328	34,223	4,496	6,762	8,530	5,499	(NA)	(NA)	1,469	
Percent change	3	2	1	(Z)	-1	4	(Z)	1	3	-13	(Z)	(Z)	5	7	-9	(NA)	(NA)	-8	
MONTHLY DATA																			
1999: August	65,329	49,943	30,409	21,212	18,980	2,232	15,050	2,461	3,709	1,136	4,561	595	827	1,012	748	(NA)	1,744	220	
September	65,420	49,965	30,520	21,028	18,846	2,182	15,148	2,437	3,848	1,127	4,625	568	737	1,035	772	(NA)	1,692	213	
October	63,501	49,401	30,274	20,591	18,460	2,131	14,769	2,298	3,702	1,107	4,551	602	708	1,044	757	(NA)	1,818	206	
November	61,241	48,113	28,877	20,068	18,023	2,045	14,603	2,242	3,535	1,167	4,600	564	707	1,023	765	(NA)	1,934	216	
December	54,164	42,535	24,117	17,619	15,616	2,003	13,729	2,275	3,326	1,147	4,056	514	680	965	764	(NA)	1,992	230	
2000: January	48,634	38,517	22,724	16,238	14,378	1,859	12,516	1,855	3,132	1,146	3,659	500	638	896	690	(NA)	1,158	157	
February	47,684	37,912	20,954	15,589	13,751	1,838	13,408	2,003	3,382	1,137	4,019	536	677	918	736	(NA)	1,096	177	
March	54,746	43,567	25,281	18,484	16,375	2,109	14,086	2,130	3,654	1,235	4,018	544	730	982	793	(NA)	1,463	194	
April	56,530	44,640	26,351	19,245	17,105	2,141	14,307	2,179	3,761	1,210	4,120	539	733	1,010	756	(NA)	1,186	182	
May	61,208	48,454	28,975	20,232	18,053	2,179	15,305	2,412	4,110	1,209	4,353	547	865	1,025	785	(NA)	1,407	191	
June	63,419	49,795	29,979	20,881	18,676	2,205	15,549	2,488	3,991	1,223	4,584	592	871	1,029	771	(NA)	1,556	208	
July	62,592	49,051	29,558	20,887	18,896	1,991	15,439	2,383	3,968	1,189	4,581	613	913	1,044	748	(NA)	1,294	213	
August	66,447	50,821	29,897	20,940	18,898	2,042	16,275	2,432	4,263	1,186	4,882	630	1,006	1,086	790	(NA)	1,408	268	
September	66,442	50,886	29,520	20,472	18,495	1,977	16,189	2,375	4,381	1,157	4,927	614	868	1,100	767	(NA)	1,766	266	
October	64,772	50,608	29,442	20,035	18,008	2,027	16,235	2,466	4,324	1,156	4,898	659	852	1,121	758	(NA)	1,570	263	
November	60,882	48,236	27,935	19,377	17,368	2,009	15,598	2,409	4,376	1,122	4,402	596	813	1,134	745	(NA)	1,679	243	
December	53,543	42,602	23,091	16,724	14,808	1,915	14,748	2,288	4,253	1,058	4,094	527	742	1,114	671	(NA)	1,913	209	
2001: January	50,313	40,273	22,256	15,749	13,901	1,848	14,053	2,285	3,974	1,041	3,822	520	727	1,056	628	(NA)	1,603	170	
February	48,527	38,639	20,732	15,190	13,322	1,867	13,775	2,077	3,835	1,041	3,910	505	712	1,033	662	(NA)	1,532	172	
March	54,718	43,912	24,706	17,657	15,667	1,989	14,869	2,283	4,170	1,061	4,226	520	778	1,094	736	(NA)	1,696	166	
April ^f	58,579	45,981	26,112	18,623	16,551	2,072	15,011	2,307	4,088	1,044	4,408	549	825	1,076	715	(NA)	1,688	181	
May ^f	63,499	49,206	29,282	20,122	17,763	2,359	15,030	2,249	3,991	1,032	4,468	575	882	1,123	710	(NA)	1,987	183	
June ^f	65,725	50,340	30,661	21,145	18,826	2,318	15,085	2,341	3,879	1,068	4,500	581	915	1,089	712	(NA)	1,806	183	
July ^f	65,990	49,624	30,520	21,756	19,467	2,290	14,586	2,339	3,601	1,031	4,388	602	943	1,027	655	(NA)	1,829	198	
August ^p	67,883	50,252	30,654	21,774	19,497	2,276	14,556	2,211	3,496	1,010	4,501	644	980	1,032	681	(NA)	(NA)	216	
PERCENT CHANGE																			
July 2001- August 2001	3	1	(Z)	(Z)	(Z)	-1	(Z)	-5	-3	-2	3	7	4	(Z)	4	(NA)	(NA)	9	

See footnotes at end of table.

Table 6. **Monthly Value of Construction Put in Place—Not Seasonally Adjusted in 1996 Dollars—Con.**

[Millions of dollars]

Period	Public construction												
	Total	Buildings						Highways and streets	Military facilities	Conservation and development	Sewer systems	Water supply facilities	Miscellaneous public ⁷
		Total	Housing and redevelopment	Industrial	Educational	Hospital	Other public buildings ⁶						
YEAR TO DATE													
August 2000	98,503	46,124	2,878	658	24,607	2,286	15,693	29,226	1,329	3,409	6,221	3,991	8,206
August 2001	107,008	50,821	3,384	795	26,983	2,156	17,501	31,522	1,297	3,991	6,055	4,556	8,765
Percent change	9	10	18	21	10	-6	12	8	-2	17	-3	14	7
MONTHLY DATA													
1999: August	15,386	6,625	417	62	3,689	283	2,174	5,289	127	543	895	616	1,290
September	15,455	6,459	442	99	3,366	327	2,225	5,384	186	713	890	594	1,229
October	14,101	6,002	413	40	3,065	296	2,188	4,837	135	380	899	588	1,260
November	13,128	5,695	375	63	2,822	291	2,143	4,175	153	511	843	546	1,205
December	11,628	5,348	377	77	2,577	285	2,033	3,316	186	505	784	465	1,025
2000: January	10,117	5,047	314	80	2,593	265	1,795	2,613	123	389	659	463	824
February	9,772	5,090	299	83	2,609	259	1,840	2,090	186	435	648	470	854
March	11,180	5,324	357	80	2,728	267	1,892	2,957	186	453	722	457	1,080
April	11,890	5,540	376	78	2,788	296	2,001	3,446	156	419	845	509	975
May	12,754	5,803	380	77	3,014	315	2,017	3,907	171	400	822	541	1,109
June	13,623	6,280	390	84	3,438	308	2,060	4,218	169	458	897	501	1,101
July	13,541	6,262	368	83	3,567	285	1,958	4,404	161	387	791	477	1,060
August	15,626	6,778	394	93	3,870	291	2,130	5,591	177	468	837	573	1,203
September	15,556	6,555	413	106	3,532	318	2,186	5,326	230	718	827	573	1,327
October	14,164	6,275	427	64	3,218	285	2,282	4,516	110	451	833	592	1,386
November	12,645	5,863	417	79	2,978	288	2,102	3,574	192	431	779	539	1,268
December	10,940	5,573	385	84	2,904	249	1,952	2,587	155	440	664	466	1,056
2001: January	10,039	5,256	378	104	2,662	260	1,851	2,202	145	459	629	423	926
February	9,887	5,095	338	86	2,558	248	1,864	2,184	136	483	604	447	939
March	10,807	5,400	354	95	2,697	256	1,998	2,666	153	511	660	497	920
April ^r	12,598	6,035	427	108	3,027	256	2,217	3,504	168	450	774	605	1,061
May ^r	14,294	6,491	465	90	3,350	266	2,320	4,539	161	540	788	576	1,199
June ^r	15,385	6,820	464	105	3,608	287	2,356	5,222	180	506	828	624	1,205
July ^r	16,367	7,456	447	103	4,248	286	2,372	5,539	169	467	846	682	1,207
August ^p	17,631	8,268	511	104	4,833	297	2,523	5,666	185	575	926	702	1,308
PERCENT CHANGE													
July 2001- August 2001	8	11	14	1	14	4	6	2	9	23	9	3	8

NA Not available, but estimates are included in totals. ^pPreliminary. ^rRevised. Z Less than 0.5 percent.

¹Includes farm nonresidential and other private categories, not shown separately. ²Includes residential improvements, not shown separately. ³Includes amusement and recreational buildings, bus and airline terminals, animal hospitals and shelters, etc. ⁴Includes gas, electric, railroad, and petroleum pipelines, not shown separately. ⁵Includes privately owned streets and bridges, parking areas, sewer and water facilities, parks and playgrounds, golf courses, airfields, etc. ⁶Includes general administrative buildings, prisons, police and fire stations, courthouses, civic centers, passenger terminals, space facilities, postal facilities, etc. ⁷Includes open amusement and recreational facilities, power generating facilities, transit systems, airfields, open parking facilities, etc.

Table 7. Monthly Value of Public Construction Put in Place—Not Seasonally Adjusted in Current Dollars

[Millions of dollars]

Period		State and locally owned public construction										
		Total state and local	Buildings					Highways and streets	Conservation and development	Sewer systems	Water supply facilities	Miscellaneous construction ²
			Total	Housing and redevelopment	Educational	Hospital	Other buildings ¹					
1999:	August	15,849	7,025	429	4,143	273	2,181	5,788	190	967	656	1,224
	September	15,497	6,663	446	3,782	294	2,140	5,888	189	960	632	1,165
	October	14,705	6,356	429	3,464	285	2,178	5,332	179	971	627	1,239
	November	13,428	6,011	382	3,206	288	2,134	4,629	216	913	584	1,076
	December	11,811	5,615	391	2,937	256	2,031	3,691	193	850	499	963
2000:	January	10,486	5,432	336	2,992	247	1,857	2,911	146	720	500	777
	February	10,035	5,490	315	3,015	245	1,915	2,336	172	713	512	813
	March	11,426	5,719	377	3,151	265	1,927	3,302	151	794	498	962
	April	12,516	6,011	402	3,230	275	2,104	3,908	148	930	564	955
	May	13,543	6,351	406	3,508	325	2,113	4,465	149	903	607	1,068
	June	14,430	6,875	418	4,006	298	2,154	4,825	146	981	565	1,038
	July	14,610	6,952	395	4,179	290	2,088	5,064	150	873	542	1,030
	August	16,832	7,504	426	4,545	288	2,246	6,436	150	927	652	1,163
	September	16,371	7,159	446	4,152	303	2,257	6,144	195	918	654	1,302
	October	15,518	6,982	466	3,797	296	2,424	5,238	232	927	679	1,460
	November	13,623	6,534	453	3,517	289	2,275	4,155	180	867	619	1,268
	December	11,663	6,193	406	3,440	253	2,095	3,006	167	737	535	1,025
2001:	January	10,631	5,837	410	3,161	268	1,999	2,555	173	697	484	884
	February	10,510	5,706	369	3,047	258	2,032	2,539	186	670	513	897
	March	11,621	6,051	386	3,231	258	2,175	3,171	198	735	570	895
	April ^f	13,767	6,835	483	3,620	271	2,462	4,135	193	860	696	1,048
	May ^f	15,723	7,400	516	4,015	272	2,598	5,348	225	877	667	1,206
	June ^f	17,113	7,763	522	4,346	281	2,614	6,216	208	933	734	1,260
	July ^f	18,317	8,537	499	5,103	288	2,647	6,577	192	951	801	1,260
	August ^p	19,704	9,521	579	5,811	307	2,824	6,724	219	1,041	824	1,375
		Federally owned public construction										
		Total federal	Buildings					Highways and streets	Military facilities	Conservation and development	Miscellaneous construction ⁴	
			Total	Housing	Industrial	Educational	Hospital					Other buildings ³
1999:	August	1,167	416	34	70	4	46	263	(NA)	142	397	182
	September	1,581	592	46	112	1	73	360	(NA)	207	580	173
	October	969	421	32	45	-	49	295	(NA)	151	232	139
	November	1,234	453	38	72	-	43	301	(NA)	172	338	248
	December	1,224	476	33	88	1	68	287	(NA)	210	355	167
2000:	January	955	390	25	93	-	59	214	(NA)	139	279	134
	February	1,060	392	27	96	-	55	213	(NA)	212	307	137
	March	1,241	426	32	92	-	44	259	(NA)	212	348	238
	April	1,065	414	29	91	7	69	218	(NA)	180	314	137
	May	1,090	397	30	89	1	43	235	(NA)	198	291	179
	June	1,221	442	32	98	3	62	249	(NA)	196	355	197
	July	1,045	382	32	98	1	45	207	(NA)	188	277	167
	August	1,265	454	31	109	2	55	256	(NA)	206	368	200
	September	1,661	550	34	125	5	71	316	(NA)	269	602	205
	October	968	416	31	76	-	40	269	(NA)	129	270	120
	November	1,125	396	35	93	5	52	211	(NA)	225	299	179
	December	1,112	412	46	99	4	43	220	(NA)	183	321	178
2001:	January	1,095	403	36	124	2	42	200	(NA)	171	336	169
	February	1,063	365	33	103	2	37	190	(NA)	161	350	173
	March	1,165	426	36	114	5	49	222	(NA)	184	371	168
	April ^f	1,084	387	26	130	4	36	193	(NA)	200	307	170
	May ^f	1,145	381	40	108	2	47	184	(NA)	192	377	170
	June ^f	1,197	449	32	127	2	65	225	(NA)	216	363	139
	July ^f	1,126	421	34	124	3	56	204	(NA)	203	334	138
	August ^p	1,249	423	33	125	3	51	211	(NA)	221	428	141

- Less than \$0.5 million. NA Not available, but estimates are included in totals. ^pPreliminary. ^fRevised.

¹Includes general administrative buildings, prisons, police and fire stations, courthouses, passenger terminals, civic centers, etc. ²Includes open amusement and recreational facilities, power generating facilities, transit systems, airfields, open parking facilities, etc. ³Includes federal office buildings, prisons, courthouses, space facilities, postal facilities, etc. ⁴Includes federal airport facilities, fish and wildlife preservation facilities, VA cemeteries, etc.

Table 8. Monthly Value of Public Construction Put in Place—Seasonally Adjusted Annual Rate in Current Dollars

[Millions of dollars]

Period		State and locally owned public construction										
		Total state and local	Buildings					Highways and streets	Conservation and development	Sewer systems	Water supply facilities	Miscellaneous construction ²
			Total	Housing and redevelopment	Educational	Hospital	Other buildings ¹					
1999:	August	151,402	71,990	5,084	39,265	3,231	24,409	47,933	1,882	10,256	7,191	12,151
	September	152,260	71,959	4,879	39,780	3,296	24,004	49,754	1,908	9,952	6,910	11,777
	October	152,739	72,008	4,700	40,042	3,200	24,066	49,758	1,800	10,298	6,442	12,433
	November	159,949	73,179	4,346	40,843	3,389	24,601	54,886	2,494	10,358	6,585	12,448
	December	165,580	73,143	4,748	39,689	3,138	25,568	59,050	2,611	11,235	6,497	13,044
2000:	January	174,229	76,136	4,481	42,946	3,270	25,438	65,420	2,336	10,532	7,410	12,394
	February	160,106	77,390	4,132	44,234	3,063	25,961	49,261	2,700	10,495	7,468	12,791
	March	169,233	77,221	4,796	44,120	3,310	24,995	58,020	2,226	10,643	6,914	14,209
	April	164,802	75,862	4,982	41,990	3,434	25,456	55,899	1,891	12,013	6,920	12,216
	May	160,332	76,751	4,780	43,526	3,750	24,694	51,614	1,774	10,515	6,979	12,699
	June	154,205	75,610	4,863	42,614	3,452	24,682	48,132	1,625	10,809	6,491	11,538
	July	152,295	74,536	4,755	41,897	3,464	24,420	49,326	1,589	9,945	5,961	10,938
	August	158,889	76,544	4,967	43,011	3,399	25,168	52,467	1,490	9,719	7,137	11,533
	September	162,936	77,393	4,976	43,708	3,422	25,286	53,618	1,972	9,617	7,156	13,181
	October	161,188	79,062	5,070	44,017	3,220	26,755	48,459	2,328	9,703	7,000	14,637
	November	161,829	79,674	5,136	44,711	3,499	26,327	48,554	2,081	9,831	6,989	14,700
	December	164,146	81,197	5,025	46,693	3,128	26,351	49,890	2,260	10,009	6,950	13,840
2001:	January	171,341	82,174	5,386	45,974	3,339	27,475	55,045	2,740	10,166	7,239	13,978
	February	172,554	81,839	5,042	45,700	3,420	27,676	55,896	2,909	10,352	7,550	14,008
	March	173,723	82,513	4,973	45,888	3,370	28,281	57,137	2,910	10,076	7,919	13,168
	April ^r	179,792	86,818	5,919	47,730	3,363	29,806	57,425	2,473	10,997	8,654	13,425
	May ^r	184,888	89,711	6,048	49,924	3,268	30,472	60,145	2,673	10,282	7,716	14,362
	June ^r	182,625	86,190	6,140	46,733	3,240	30,077	61,238	2,309	10,410	8,463	14,013
	July ^r	188,075	91,671	5,968	51,418	3,360	30,927	61,468	2,046	10,664	8,790	13,436
	August ^p	187,313	96,132	6,690	54,311	3,661	31,470	55,494	2,179	10,883	8,920	13,705
		Federally owned public construction										
		Total federal	Buildings					Highways and streets	Military facilities	Conservation and development	Miscellaneous construction ⁴	
			Total	Housing	Industrial	Educational	Hospital					Other buildings ³
1999:	August	13,407	5,096	411	853	47	563	3,222	(NA)	1,643	4,405	2,014
	September	13,101	5,351	411	1,009	8	664	3,258	(NA)	1,932	4,293	1,280
	October	14,625	5,996	449	643	1	704	4,199	(NA)	2,213	3,856	2,308
	November	15,264	5,732	481	910	1	540	3,800	(NA)	2,010	4,188	3,072
	December	14,794	5,476	378	1,011	7	785	3,294	(NA)	2,410	4,516	2,120
2000:	January	13,049	5,213	329	1,240	1	784	2,858	(NA)	1,849	3,846	1,850
	February	14,849	5,228	363	1,287	4	734	2,840	(NA)	3,100	4,322	1,925
	March	15,041	4,939	372	1,064	2	504	2,997	(NA)	2,467	4,364	2,989
	April	13,549	5,297	371	1,163	93	879	2,791	(NA)	2,289	3,954	1,723
	May	13,062	4,723	359	1,059	12	505	2,789	(NA)	2,329	3,539	2,182
	June	13,957	4,878	347	1,078	28	679	2,746	(NA)	2,262	4,189	2,329
	July	12,225	4,546	376	1,161	14	535	2,461	(NA)	2,196	3,229	1,952
	August	14,422	5,435	375	1,308	28	656	3,068	(NA)	2,386	4,078	2,214
	September	13,623	4,840	298	1,099	42	621	2,780	(NA)	2,509	4,454	1,514
	October	14,781	6,101	447	1,116	3	585	3,949	(NA)	1,883	4,487	2,004
	November	13,850	5,000	440	1,177	64	652	2,667	(NA)	2,629	3,708	2,211
	December	13,737	4,986	553	1,201	52	515	2,665	(NA)	2,107	4,080	2,265
2001:	January	14,759	5,184	466	1,587	27	536	2,568	(NA)	2,270	4,641	2,341
	February	14,954	4,946	440	1,392	31	505	2,577	(NA)	2,342	4,928	2,430
	March	14,241	5,034	420	1,351	58	583	2,622	(NA)	2,131	4,663	2,107
	April ^r	13,605	4,789	320	1,605	43	439	2,381	(NA)	2,530	3,859	2,135
	May ^r	13,848	4,694	487	1,329	30	577	2,272	(NA)	2,274	4,543	2,044
	June ^r	13,624	4,929	348	1,388	21	709	2,465	(NA)	2,477	4,283	1,639
	July ^r	13,250	5,067	414	1,496	34	672	2,452	(NA)	2,371	3,909	1,614
	August ^p	13,908	4,772	372	1,410	34	574	2,382	(NA)	2,550	4,729	1,560

NA Not available, but estimates are included in totals. ^pPreliminary. ^rRevised.

¹Includes general administrative buildings, prisons, police and fire stations, courthouses, passenger terminals, civic centers, etc. ²Includes open amusement and recreational facilities, power generating facilities, transit systems, airfields, open parking facilities, etc. ³Includes federal office buildings, prisons, courthouses, space facilities, postal facilities, etc. ⁴Includes federal airport facilities, fish and wildlife preservation facilities, VA cemeteries, etc.

Table 9. Monthly Value of Public Construction Put in Place—Seasonally Adjusted Annual Rate in 1996 Dollars

[Millions of dollars]

Period		State and locally owned public construction										
		Total state and local	Buildings					Highways and streets	Conservation and development	Sewer systems	Water supply facilities	Miscellaneous construction ²
			Total	Housing and redevelopment	Educational	Hospital	Other buildings ¹					
1999:	August	136,825	64,105	4,580	34,934	2,875	21,716	43,575	1,742	9,496	6,759	11,148
	September	137,644	64,071	4,391	35,391	2,932	21,356	45,272	1,768	9,224	6,495	10,814
	October	137,281	63,780	4,215	35,435	2,832	21,298	44,908	1,665	9,526	6,037	11,365
	November	143,089	64,473	3,881	35,954	2,984	21,655	49,269	2,303	9,564	6,154	11,327
	December	147,685	64,220	4,224	34,815	2,753	22,428	52,817	2,407	10,355	6,050	11,837
2000:	January	154,308	65,999	3,907	37,215	2,834	22,044	58,463	2,139	9,645	6,855	11,206
	February	141,155	66,978	3,606	38,265	2,649	22,457	43,827	2,455	9,541	6,852	11,503
	March	149,437	66,894	4,189	38,199	2,866	21,641	51,711	2,023	9,676	6,343	12,790
	April	144,212	65,402	4,351	36,167	2,958	21,926	49,035	1,717	10,911	6,240	10,907
	May	139,622	65,991	4,160	37,394	3,222	21,215	44,921	1,616	9,576	6,220	11,298
	June	134,110	64,889	4,214	36,547	2,960	21,168	41,817	1,485	9,880	5,754	10,284
	July	131,663	63,646	4,107	35,748	2,955	20,836	42,632	1,440	9,017	5,248	9,680
	August	137,080	65,202	4,285	36,605	2,893	21,419	45,309	1,346	8,779	6,266	10,179
	September	140,356	65,809	4,282	37,135	2,907	21,484	46,222	1,776	8,664	6,272	11,613
	October	138,346	67,061	4,356	37,303	2,728	22,674	41,524	2,093	8,725	6,103	12,839
	November	138,583	67,405	4,397	37,795	2,958	22,255	41,499	1,872	8,841	6,083	12,884
	December	140,431	68,506	4,281	39,370	2,638	22,218	42,678	2,036	9,017	6,054	12,140
2001:	January	146,601	69,197	4,560	38,699	2,811	23,127	47,168	2,471	9,167	6,317	12,283
	February	147,321	68,678	4,251	38,339	2,869	23,218	47,815	2,621	9,326	6,583	12,298
	March	146,528	68,788	4,172	38,240	2,809	23,568	47,773	2,615	9,053	6,898	11,401
	April ^f	152,318	72,551	4,966	39,874	2,810	24,901	48,419	2,228	9,907	7,518	11,695
	May ^f	156,449	74,838	5,061	41,638	2,725	25,414	50,798	2,401	9,238	6,663	12,510
	June ^f	153,340	71,579	5,147	38,783	2,689	24,960	51,203	2,049	9,237	7,203	12,070
	July ^f	158,225	76,303	5,002	42,777	2,795	25,729	51,524	1,820	9,488	7,487	11,603
	August ^p	157,487	79,933	5,584	45,146	3,043	26,159	46,516	1,938	9,682	7,592	11,825
		Federally owned public construction										
		Total federal	Buildings					Highways and streets	Military facilities	Conservation and development	Miscellaneous construction ⁴	
			Total	Housing	Industrial	Educational	Hospital					Other buildings ³
1999:	August	12,169	4,539	371	759	41	501	2,866	(NA)	1,477	4,079	1,848
	September	11,881	4,765	370	898	7	591	2,899	(NA)	1,739	3,979	1,175
	October	13,194	5,311	403	569	1	623	3,716	(NA)	1,977	3,567	2,110
	November	13,736	5,052	429	801	1	475	3,345	(NA)	1,787	3,867	2,796
	December	13,273	4,808	336	887	6	689	2,890	(NA)	2,135	4,162	1,924
2000:	January	11,600	4,519	287	1,075	1	680	2,477	(NA)	1,626	3,522	1,672
	February	13,148	4,526	317	1,113	3	635	2,457	(NA)	2,719	3,929	1,731
	March	13,353	4,279	325	922	2	436	2,594	(NA)	2,166	3,967	2,691
	April	11,936	4,567	324	1,002	80	757	2,404	(NA)	1,989	3,591	1,538
	May	11,491	4,061	312	909	10	434	2,396	(NA)	2,013	3,223	1,941
	June	12,305	4,187	301	924	24	583	2,355	(NA)	1,953	3,829	2,076
	July	10,684	3,883	325	990	12	456	2,100	(NA)	1,885	2,928	1,728
	August	12,581	4,630	323	1,113	23	559	2,611	(NA)	2,046	3,684	1,954
	September	11,872	4,116	257	934	36	527	2,362	(NA)	2,146	4,012	1,334
	October	12,836	5,176	384	946	2	496	3,347	(NA)	1,606	4,035	1,758
	November	11,997	4,231	376	995	54	551	2,254	(NA)	2,235	3,334	1,937
	December	11,915	4,209	471	1,013	44	435	2,247	(NA)	1,788	3,675	1,987
2001:	January	12,812	4,366	395	1,336	23	451	2,162	(NA)	1,927	4,185	2,057
	February	12,973	4,151	371	1,168	26	424	2,162	(NA)	1,985	4,440	2,133
	March	12,246	4,197	352	1,126	48	486	2,185	(NA)	1,779	4,189	1,824
	April ^f	11,708	4,002	269	1,340	36	367	1,990	(NA)	2,125	3,477	1,859
	May ^f	11,934	3,916	407	1,109	25	481	1,895	(NA)	1,908	4,082	1,781
	June ^f	11,617	4,094	291	1,152	17	588	2,045	(NA)	2,064	3,801	1,412
	July ^f	11,313	4,218	347	1,244	28	559	2,040	(NA)	1,981	3,478	1,393
	August ^p	11,899	3,968	311	1,172	28	477	1,980	(NA)	2,128	4,208	1,346

NA Not available, but estimates are included in totals. ^pPreliminary. ^fRevised.

¹Includes general administrative buildings, prisons, police and fire stations, courthouses, passenger terminals, civic centers, etc. ²Includes open amusement and recreational facilities, power generating facilities, transit systems, airfields, open parking facilities, etc. ³Includes federal office buildings, prisons, courthouses, space facilities, postal facilities, etc. ⁴Includes federal airport facilities, fish and wildlife preservation facilities, VA cemeteries, etc.

Table 10. Monthly Value of Public Construction Put in Place—Not Seasonally Adjusted in 1996 Dollars

[Millions of dollars]

Period		State and locally owned public construction										
		Total state and local	Buildings					Highways and streets	Conservation and development	Sewer systems	Water supply facilities	Miscellaneous construction ²
			Total	Housing and redevelopment	Educational	Hospital	Other buildings ¹					
1999:	August	14,326	6,255	387	3,685	242	1,940	5,262	176	895	616	1,123
	September	14,018	5,932	401	3,365	261	1,904	5,357	175	890	594	1,070
	October	13,227	5,630	385	3,065	252	1,927	4,813	166	899	588	1,133
	November	12,018	5,296	341	2,822	254	1,879	4,155	199	843	546	979
	December	10,531	4,930	348	2,576	225	1,781	3,301	178	784	465	874
2000:	January	9,269	4,709	293	2,593	214	1,609	2,602	134	659	463	702
	February	8,835	4,751	275	2,608	212	1,656	2,078	156	648	470	731
	March	10,079	4,954	329	2,728	229	1,668	2,943	137	722	457	865
	April	10,951	5,183	351	2,782	237	1,813	3,428	134	845	509	853
	May	11,796	5,461	353	3,013	279	1,816	3,886	136	822	541	950
	June	12,548	5,900	362	3,435	256	1,847	4,192	134	897	501	925
	July	12,627	5,936	341	3,566	247	1,781	4,377	136	791	477	912
	August	14,521	6,392	367	3,868	245	1,912	5,558	136	837	573	1,026
	September	14,106	6,087	384	3,528	258	1,917	5,296	175	827	573	1,147
	October	13,325	5,923	400	3,217	251	2,054	4,488	209	833	592	1,281
	November	11,671	5,528	388	2,973	244	1,923	3,552	161	779	539	1,111
	December	9,977	5,225	346	2,900	213	1,766	2,571	151	664	466	899
2001:	January	9,090	4,916	347	2,661	225	1,682	2,189	156	629	423	777
	February	8,966	4,788	311	2,556	217	1,705	2,172	168	604	447	787
	March	9,806	5,045	324	2,693	215	1,813	2,651	178	660	497	775
	April ^f	11,664	5,712	405	3,024	227	2,056	3,486	174	774	605	913
	May ^f	13,307	6,173	431	3,348	227	2,167	4,517	202	788	576	1,051
	June ^f	14,365	6,447	437	3,607	233	2,169	5,197	184	828	624	1,085
	July ^r	15,405	7,106	419	4,246	239	2,202	5,513	171	846	682	1,088
	August ^p	16,561	7,916	483	4,831	255	2,348	5,636	194	926	702	1,186
		Federally owned public construction										
		Total federal	Buildings					Highways and streets	Military facilities	Conservation and development	Miscellaneous construction ⁴	
			Total	Housing	Industrial	Educational	Hospital					Other buildings ³
1999:	August	1,060	371	30	62	3	41	234	(NA)	127	368	167
	September	1,436	527	41	99	1	65	321	(NA)	186	538	159
	October	873	373	28	40	-	44	261	(NA)	135	214	127
	November	1,111	400	34	63	-	38	265	(NA)	153	312	226
	December	1,097	418	29	77	1	60	251	(NA)	186	327	151
2000:	January	849	338	21	80	-	51	185	(NA)	123	255	121
	February	938	339	24	83	-	48	184	(NA)	186	279	123
	March	1,101	369	28	80	-	38	224	(NA)	186	316	215
	April	939	357	25	78	6	59	188	(NA)	156	285	122
	May	958	342	26	77	1	37	202	(NA)	171	265	159
	June	1,075	380	27	84	2	53	214	(NA)	169	324	176
	July	914	326	27	83	1	38	176	(NA)	161	251	148
	August	1,104	387	27	93	2	47	218	(NA)	177	332	176
	September	1,451	467	29	106	4	60	268	(NA)	230	542	180
	October	839	353	26	64	-	34	228	(NA)	110	242	106
	November	975	335	30	79	4	44	178	(NA)	192	269	156
	December	964	348	39	84	4	36	186	(NA)	155	289	156
2001:	January	949	340	31	104	2	35	168	(NA)	145	303	149
	February	922	307	27	86	2	31	160	(NA)	136	315	151
	March	1,001	355	30	95	4	41	185	(NA)	153	333	145
	April ^f	933	323	22	108	3	30	161	(NA)	168	276	148
	May ^f	987	318	33	90	2	39	154	(NA)	161	338	148
	June ^f	1,020	373	27	105	2	54	186	(NA)	180	322	120
	July ^r	962	351	29	103	2	47	170	(NA)	169	297	119
	August ^p	1,069	352	28	104	2	42	176	(NA)	185	381	122

- Less than \$0.5 million. NA Not available, but estimates are included in totals. ^pPreliminary. ^rRevised.

¹Includes general administrative buildings, prisons, police and fire stations, courthouses, passenger terminals, civic centers, etc. ²Includes open amusement and recreational facilities, power generating facilities, transit systems, airfields, open parking facilities, etc. ³Includes federal office buildings, prisons, courthouses, space facilities, postal facilities, etc. ⁴Includes federal airport facilities, fish and wildlife preservation facilities, VA cemeteries, etc.

Table 11. Indexes Used in Deriving Estimates of the Value of Construction Put in Place in Constant Dollars

[1996 = 100]

Period	U.S. Census Bureau		Engineering News-Record		U.S. Census Bureau Houses Under Construction		Federal Highway Administration composite	Bureau of Reclamation	Turner Construction Company	Handy-Whitman public utility				C.A. Turner telephone plant
	Composite fixed-weighted	Implicit price deflator	Buildings	Construction	Fixed-weighted	Price deflator				Buildings	Electric	Gas	Water	
	Annual indexes													
1996.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100	100	100	100	100	100	100
1997.....	103.2	103.3	105.0	103.6	102.9	102.9	107.5	103	104	103	102	102	102	102
1998.....	106.0	106.1	105.8	105.3	105.6	105.6	105.2	105	109	104	104	104	104	102
1999.....	110.3	110.4	107.9	107.8	110.4	110.4	112.7	107	113	107	105	107	107	101
2000.....	115.3	115.4	110.5	110.6	115.5	115.6	119.3	111	118	110	109	111	112	103
	Monthly indexes						Quarterly indexes			Semiannual indexes				
2000: January	113.9	114.0	109.4	109.0	114.5	114.7								
February	114.1	114.1	110.0	109.6	114.5	114.6	113.2	109	116					
March.....	114.0	113.9	110.4	110.3	114.4	114.5				109	106	110	108	101
April.....	114.5	114.4	110.3	110.3	114.5	114.5								
May.....	114.8	114.8	111.1	110.9	114.8	114.9	128.4	111	117					
June.....	115.0	115.1	110.9	111.0	115.2	115.4								
July.....	115.6	115.7	110.7	110.7	115.7	115.8								
August.....	115.7	115.8	110.7	110.9	115.8	115.9	113.0	111	119					
September.....	116.1	115.9	110.5	110.7	116.2	116.2				111	110	111	113	103
October.....	116.4	116.3	110.5	110.7	116.5	116.4								
November.....	116.7	116.6	110.6	111.4	116.8	116.8	122.9	111	120					
December.....	117.1	116.9	110.8	111.7	117.4	117.4								
2001: January	117.8	117.4	110.7	111.7	118.2	118.1								
February.....	118.3	117.7	110.4	111.6	118.7	118.6	123.9	112	121					
March.....	118.8	118.5	110.5	111.7	119.4	119.2				112	111	113	115	104
April.....	^r 118.7	^r 118.3	110.5	111.8	^r 119.5	^r 119.2								
May.....	^r 118.9	^r 118.6	110.7	111.8	^r 119.8	^r 119.5	111.9	112	121					
June.....	^r 119.2	^r 119.0	111.5	112.4	^r 119.5	^r 119.3								
July.....	^r 119.1	^r 118.9	113.2	113.9	^r 119.5	^r 119.3								
August.....	^p 119.3	^p 119.1	112.6	113.6	^p 120.0	^p 119.8	(NA)	112	122					
September.....			112.3	113.7						114	113	115	117	106

NA Not available. ^pPreliminary. ^rRevised.

Table 12. **Factors Used to Seasonally Adjust Estimates of the Value of Construction Put in Place**
 [Percent]

Type of construction	Aug. 2001 ^P	July 2001 ^f	June 2001 ^f	May 2001 ^f	Apr. 2001 ^f	Mar. 2001	Feb. 2001	Jan. 2001	Dec. 2000	Nov. 2000	Oct. 2000	Aug. 2000
PRIVATE CONSTRUCTION												
Residential buildings:												
New housing units:												
1 unit	113.1	112.5	108.9	103.2	96.7	91.7	77.2	82.2	88.8	104.9	109.2	113.3
2 units or more	106.4	103.8	106.9	105.8	99.2	96.5	89.1	89.1	94.3	101.0	104.4	106.5
Nonresidential buildings:												
Industrial	103.5	101.4	102.7	101.3	95.6	94.4	89.0	90.8	103.7	102.8	108.7	105.1
Office	103.9	100.2	102.0	104.4	99.8	97.1	93.1	93.1	95.9	102.6	103.8	104.6
Hotels, motels	102.9	102.2	103.3	102.3	100.6	101.0	93.4	93.1	96.2	100.4	102.3	104.8
Other commercial	111.0	106.3	105.2	101.1	95.8	90.9	85.2	84.4	93.8	104.1	110.5	111.6
Religious	107.4	100.2	96.2	98.8	94.1	92.6	88.7	91.7	96.3	110.4	114.3	111.1
Educational	119.8	117.4	114.3	104.0	95.3	90.4	84.3	83.6	87.6	95.3	99.6	119.9
Hospital and institutional	102.3	97.6	100.5	100.8	100.9	99.1	94.2	93.8	99.1	103.7	104.3	102.6
Miscellaneous nonresidential	103.2	101.2	102.5	101.7	103.1	98.8	91.4	89.2	96.9	102.4	105.8	103.3
Telecommunications	112.2	100.8	103.7	103.3	93.4	98.6	84.0	82.8	104.1	106.8	109.0	111.0
All other private	115.8	105.5	100.2	96.2	92.0	90.1	80.5	86.4	101.0	104.9	115.2	115.3
PUBLIC CONSTRUCTION												
State and Local												
Buildings:												
Housing and redevelopment	103.8	100.4	102.0	102.3	97.9	93.2	87.8	91.4	96.9	105.8	110.3	102.9
Educational	128.4	119.1	111.6	96.5	91.0	84.5	80.0	82.5	88.4	94.4	103.5	126.8
Hospital	100.5	102.8	104.0	100.0	96.8	92.0	90.6	96.2	96.9	99.1	110.4	101.5
Other buildings	107.7	102.7	104.3	102.3	99.1	92.3	88.1	87.3	95.4	103.7	108.7	107.1
Highways and streets	145.4	128.4	121.8	106.7	86.4	66.6	54.5	55.7	72.3	102.7	129.7	147.2
Conservation and development	120.4	112.5	107.9	100.8	93.7	81.6	76.8	75.9	88.9	103.5	119.7	121.0
Sewer systems	114.8	107.0	107.5	102.3	93.8	87.5	77.7	82.3	88.4	105.8	114.6	114.4
Water supply facilities	110.9	109.3	104.0	103.8	96.5	86.4	81.5	80.3	92.3	106.3	116.4	109.7
Miscellaneous construction	120.4	112.5	107.9	100.8	93.7	81.6	76.8	75.9	88.9	103.5	119.7	121.0
Federal												
Buildings:												
Housing and redevelopment	106.4	99.8	109.4	97.4	97.0	101.5	88.6	93.4	99.2	95.0	81.8	100.2
Industrial	106.4	99.8	109.4	97.4	97.0	101.5	88.6	93.4	99.2	95.0	81.8	100.2
Educational	106.4	99.8	109.4	97.4	97.0	101.5	88.6	93.4	99.2	95.0	81.8	100.2
Hospital	106.4	99.8	109.4	97.4	97.0	101.5	88.6	93.4	99.2	95.0	81.8	100.2
Other buildings	106.4	99.8	109.4	97.4	97.0	101.5	88.6	93.4	99.2	95.0	81.8	100.2
Military	104.1	102.6	104.4	101.2	94.8	103.4	82.5	90.5	104.3	102.9	82.0	103.5
Conservation and development	108.6	102.4	101.7	99.5	95.4	95.4	85.2	86.8	94.3	96.9	72.1	108.2
Miscellaneous construction	108.6	102.4	101.7	99.5	95.4	95.4	85.2	86.8	94.3	96.9	72.1	108.2

^PPreliminary. ^fRevised.

Appendix.

Reliability of the Estimates

The statistics on the value of construction put in place result from direct measurement and indirect estimation. A series results from direct measurement when it is based on reports of the actual value of construction progress or construction expenditures obtained from a complete census or sample survey. All other series are developed by indirect estimation using related construction statistics.

On an annual basis, the estimates for series directly measured monthly, quarterly, or annually accounted for about 71 percent of total construction in 2000 (private multi-family residential, private residential improvements, private nonresidential buildings, farm nonresidential construction, public utility construction, all other private construction, and virtually all of public construction). On a monthly basis, directly measured data are available for about 51 percent of the value-in-place estimates.

Some of the directly measured monthly construction value-in-place estimates are based on samples. Estimates from these samples may differ from statistics which would have been obtained from a complete census using the same schedules and procedures. An estimate based on a sample survey is subject to both sampling error and nonsampling error. The accuracy of a survey result is determined by the joint effects of these errors.

MEASURE OF SAMPLING ERRORS

Sampling error reflects the fact that only a particular sample was surveyed rather than the entire population. Each sample selected for the monthly value-in-place survey is one of a large number of similar probability samples that, by chance, might have been selected under the same specifications. Estimates derived from the different samples would differ from one another. The standard error, or sampling error, of a survey estimate is a measure of the variation among the estimates from all possible samples and, thus, is a measure of the precision with which an estimate from a particular sample approximates the average from all possible samples.

Estimates of the standard errors for the monthly, year-to-date and annual estimates were computed from the sample data for selected statistics in this report.

They are presented in the form of relative standard errors in the following table. The relative standard error equals the standard error divided by the estimated value to which it refers.

The sample estimate and an estimate of its standard error allow us to construct interval estimates with prescribed confidence that the interval includes the average result of all possible samples with the same size and design. A 90-percent confidence interval is defined to be from 1.6 standard errors below the estimate to 1.6 standard errors above the estimate. If all possible samples were selected and surveyed under essentially the same conditions and all the respective 90-percent confidence intervals were generated, then approximately nine-tenths of the intervals would include the average value of all sample estimates and approximately one-tenth would not include this estimate. For example, suppose Table 3 of this report showed that the monthly VIP estimate for “total private nonresidential buildings” was \$10.0 billion in a particular month. According to the following table, the relative standard error of this estimate is 2 percent. Multiplying \$10.0 billion by .02, we obtain \$200 million as the standard error. To obtain a 90-percent confidence interval, multiply \$200 million by 1.6 and add and subtract the result from \$10.0 billion, yielding limits of \$9.68 billion and \$10.32 billion. The average value of the monthly VIP estimate for “total private nonresidential buildings” may or may not be contained in this computed interval, but one can say that the average is included in the constructed interval with a specified confidence of 90 percent.

The following table also presents coefficients necessary to compute standard errors for the month-to-month and year-to-date changes. To derive a specific standard error of a change, look up an appropriate coefficient (k1 or k2) for the change and apply the following formula:

$$\text{Standard error of a change} = k (100 + \text{percent change shown in Tables 3 through 6})$$

Once the standard error is available, one can construct a 90-percent confidence interval of the change by multiplying the standard error by 1.6.

No standard errors are shown for farm nonresidential or public utilities because the estimates are based on a complete enumeration.

NONSAMPLING ERRORS

As calculated for this report, the coefficient of variation estimates sampling variation but does not measure all nonsampling error in the data. Nonsampling error consists of both a variance component and a bias component. Bias is the difference, averaged over all possible samples of the same size and design, between the estimate and the true value being estimated. Nonsampling errors are usually attributed to many possible sources: (1) coverage error—failure to accurately represent all population units in the sample, (2) inability to obtain information about all sample cases, (3) response errors, possibly due to definitional difficulties or misreporting, (4) mistakes in recording or coding the data obtained, and (5) other errors of coverage, collection and nonresponse, response, processing, or imputing for missing or inconsistent data. These nonsampling errors also occur in incomplete censuses. Although no direct measures of these errors have been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data to minimize their influence.

A major source of nonsampling error in the published estimates is due to the need to impute data for nonrespondents and for late and inconsistent reports. For preliminary value-in-place estimates, the average imputation rates for major components are as follows: private nonresidential construction, 49 percent; state and locally owned public construction, 33 percent; private residential construction of 2 units or more, 42 percent; and private residential improvements, 15 percent. Each of these imputation rates is not an explicit indication of the potential error in statistics, but the degree of uncertainty regarding the accuracy of the statistics increases as the percentage of imputation increases.

Other potential sources of bias are the upward adjustment of 27 percent made to the private nonresidential construction and the adjustment of the state and local owned public construction to the construction outlays from the Annual Survey of Government Finances in order to account for construction projects not included in their respective sampling frames. The adjustment for the nonresidential construction results from a coverage evaluation sample; hence, the estimated percentage adjustment is subject to sampling error and nonsampling errors associated with the evaluation study. In addition, the percentage was estimated from data collected during a limited time period; therefore, these adjustments do not reflect any recent changes in the proportion of projects not included in the frame.

For state and locally owned construction, construction outlays from the Survey of Government Finances are available only through Fiscal Year 1998. (Outlays are included if a government agency's fiscal year ending date falls within July 1997 to June 1998 inclusive, and for three state agencies with fiscal years ending in August or September 1998.) As a result, the adjustment to the construction outlay levels of this survey must be projected ahead for 4 years from 1998 through April 2002. The relationship between the state and locally owned value-in-place and the capital outlays estimate changes from year to year so that revisions of 4 to 5 percent are expected in state and local construction and substantially larger revisions can be expected in the individual types of construction. In addition, because of the definition of fiscal year for the Survey of Government Finances, the reported capital outlays do not correspond to any 12 month period but result from capital outlays made over a 26 month period. There are also definitional and timing differences between the concepts of capital outlays and value put in place.

Consequently, even though the private nonresidential and state and local owned construction adjustments are designed to reduce the bias due to the failure to include projects in the sampling frames, for the above stated reasons, these adjustment procedures, themselves, may introduce a bias in the current estimates of value-in-place.

Furthermore, additional nonsampling errors may be introduced into the estimates because the procedures such as phasing, extrapolating, and forecasting used to develop the indirectly measured series are subject to the validity of the underlying assumptions made and mathematical models used. No explicit measures of the effect of these procedures are available.

MONTHLY REVISIONS TO ESTIMATES

Statistics for the current month are preliminary estimates. These estimates are released to provide government and private data users with early measures of construction activity. A necessary part of the process of issuing these early data involves the issuance of subsequent revisions. The revisions to monthly construction put in place estimates are primarily the result of the replacement of imputed data with data which are reported in subsequent months.

For total construction, the range of the difference between the last 12 preliminary and second revision estimates for the same months was from -2.4 percent to 1.1 percent with a median of -0.1 percent. The range of the difference between first revision and second revision was from -1.8 to 0.9 percent, with a median of 0.1 percent.

Relative Standard Errors and Coefficients for Standard Errors of Changes

Type of construction	Relative standard error (percent)			Coefficient for changes	
	Monthly estimate	Year-to-date estimate	Annual estimate	Month-to-month change (k1)	Year-to-date change (k2)
Total construction	2	1	1	.03	.02
Private construction	3	2	1	.04	.02
Residential buildings	5	3	2	.06	.03
New housing units	2	2	1	.01	.02
1 unit	2	2	2	.01	.01
2 units or more	4	3	3	.03	.03
Nonresidential buildings	2	1	1	.02	.01
Industrial	3	2	2	.04	.03
Office	4	2	2	.05	.03
Hotels, motels	7	6	5	.09	.08
Other commercial	5	3	2	.06	.04
Religious	9	7	5	.12	.10
Educational	7	5	5	.10	.07
Hospital and institutional	6	5	5	.07	.07
Miscellaneous buildings	7	4	4	.09	.06
Public construction	2	1	1	.03	.01
Housing and redevelopment	8	5	4	.11	.07
Industrial	(NA)	(NA)	(NA)	(NA)	(NA)
Educational	3	2	2	.04	.03
Hospital	6	4	4	.08	.06
Other public buildings	3	2	2	.04	.03
Highways and streets	4	2	2	.05	.03
Military facilities	(NA)	(NA)	(NA)	(NA)	(NA)
Conservation and development	4	2	2	.06	.03
Sewer systems	6	3	3	.08	.04
Water supply facilities	8	4	3	.11	.06
Miscellaneous public	8	4	4	.11	.06
State and local construction	2	1	1	.03	.01
Housing and redevelopment	8	5	5	.11	.07
Educational	3	2	2	.04	.03
Hospital	8	6	5	.11	.09
Other public buildings	4	3	2	.05	.04
Highways and streets	4	2	2	.05	.03
Conservation and development	16	9	9	.23	.13
Sewer systems	6	3	3	.08	.04
Water supply facilities	8	4	3	.11	.06
Miscellaneous public	9	5	4	.12	.07
Federal construction	(NA)	(NA)	(NA)	(NA)	(NA)

NA Not available.

Note: All statistics are based upon 2000 data. The coefficient (k1) for the month-to-month change is applicable to change from the previous month and change from the same month a year ago.